

WHO INVENTED WHAT? EXPLORING THE ROLE OF THE NORTH WESTERN SEMITIC ALPHABET UPON THE FORMATION OF MODERN EUROPEAN LANGUAGES

AURELIAN BOTICĂ¹

Emanuel University of Oradea, Romania

ABSTRACT: It is an accepted fact that, with some exceptions, the ancient Greek and Latin languages served as the basis for the formation of most of the Western (modern) languages. However, what remains less known is that the Greeks borrowed the alphabet letters from the North-Western Semitic alphabet of the 2nd millennium BCE. This alphabet was used by Phoenicians, Arameans, Hebrews and the Moabites beginning with the early second millennium and was borrowed by the early Greeks from Phoenician merchants in the later part of the second millennium and the beginning of the first millennium BCE.

In this article we will explore the issue of the revolutionary contribution that the North-Western semitic alphabet had upon the cultures of the Ancient Near East (including Egypt, Canaan, Mesopotamia and Siria).² The transition from a system that used hundreds of pictograms and signs (the cuneiform and hieroglyphic alphabets) to an alphabet of only 22 linear letters marked one of the most important, yet neglected, innovations in ancient history. The purpose of our article is to draw on both ancient and contemporary scholarship in order to show how this revolution-

- 1 Dr. Aurelian Botica, Professor of ancient Hebrew at the Emanuel University of Oradea, Romania. PhD. Hebrew Union College (Cincinnati, Ohio). dabotica@gmail.com
- 2 This paper is a revised version of an earlier article that was published under the title: Aurelian Botica, "Giving History Its Due: Exploring the Role of the North Western Semitic Alphabet Upon the Formation of Modern European Languages." *Procedia of Interdisciplinarity. DSCEI2014*. Selected Papers International Conference. University of Oradea 2014. S. Chirimbu, A. Burda eds. (Sandy, UT: Aardvark Global Publishing, 2015).

ary alphabet influenced the Greek and Latin alphabets (and implicitly the languages themselves) and the impact that this event had upon the formation of the modern European languages.

KEY WORDS: Greek, Latin, North Western Semitic, alphabet, languages.

Introduction

In order to understand better the impact that the North Western Semitic alphabet had upon the development of the modern European alphabets, one must define carefully the terms involved in this discussion. The word “alphabet” derives from a word-play on the first two letters of the Greek alphabet: *alpha* and *betha*. The word itself appeared as early as the Hellenistic times, even though the Greeks employed it early in the classical times.³ In the view of Powell, the alphabet is

“...a writing whose graphic elements represent the atoms of spoken language, so that, ideally, the approximate sound of the spoken word can be reconstructed solely by means of the sequence of graphic signs...The alphabet attempts to translate the aural, invisible elements of human speech into graphic, visible signs... The alphabet is a system that uses uni-consonantal signs, as opposed to other systems of writing that use bi-consonantal or tri-consonantal signs, pictograms or logograms.”⁴

Now, what this definition attempts to say is that the alphabet is not a unique system of representing the sounds of the human language. It is but one of the systems. In other words, before the classic 22 (or 23) linear letters were accepted as the standard Greek, then the Latin and later the

3 See B. Powell, *Writing: Theory and History of the Technology and Civilization* (Chicago, IL: John Wiley & Sons, 2012), 155-56; *Homer and the Origin of the Greek Alphabet* (Cambridge, MA: Cambridge University Press, 1996), 2-3, and H.G. Liddell, R. Scott, *A Greek-English Lexicon* (Oxford: Clarendon Press, 1968, 1990).

4 A. Robinson, *Istoria Scrisului (The Story of Writing)*, Gafița Mihnea trad. (București: Editura Art, 2009), 100-101.

“Romance” language alphabet (with the variations characteristic to the European language families), other systems of representing the sounds of the language had been available. We will describe these systems in the following pages. It is important, however, to state that the linear, 22 letter alphabet was a later rather than an early creation of the human mind.

The Formation and Development of the Semitic Alphabet

In order to understand how the Latin alphabet reached its final form, one must be aware of the historical developments that took place in Asia Minor with more than two millennia before the Latin language settled on the version that resembles the actual form.

The Earliest Writing Systems

Scholars have shown that the earliest attempts to write using signs that depicted syllables and other sounds can be traced to the Sumerians in the fourth millennium; more precisely, around 3300-3100 BCE.⁵ However, most scholars agree that if one defines “writing” in the large sense of recording words by means of signs or pictograms, then writing must have come into existence much earlier, in the form of “proto-writing.”⁶

5 E. Lipinsky, *Semitic Languages. Outline of a Comparative Grammar* (Leuven: Peeters Publishing, 1997), 87-88; Ellias Brotzman, *Old Testament Textual Criticism* (Grand Rapids, MI: Baker Publishing, 1994), 25; J. Huehnergard, “Languages (Summerian),” *Anchor Bible Dictionary*, D.N. Freedman ed. (New York: Doubleday, 1992), 4:155-170.

6 A. Robinson, *Istoria Scrisului*, 53. In connection to the earliest forms of record keeping, one may note the discovery of “clay tokens,” that is, small clay objects used to “store and manipulate economic data;” thus D. Schmandt-Besserat, “Record Keeping Before Writing,” in *Civilizations of the Ancient Near East*, R. Sasson ed. (Peabody, MA: Hendricksen Publishers, 1995), 4:2097-2106. The clay tokens came in different forms, but the most prevalent were triangles, ovoids, rectangles, cones, spheres, triangles and disks. Although scholars have not been able to determine the precise significance of the tokens, it is generally believed that they were used to keep records of grain, animals, and food stuffs and to help measure and estimate the transactions among people. In essence, “the tokens translated concrete information, such

AURELIAN BOTICĂ

The Sumerians lived in the city-state of Sumer, the Southern area of ancient Mesopotamia (South of modern Bagdad). The Sumerian scribes used the cuneiform (lit. “form of feather”) signs in order to record and express in writing a “mixed system of word signs and syllabograms.”⁷ Initially, the Sumerians developed a system based on “pictograms,” in which “signs were used to picture specific objects and thus call them to mind.”⁸ In fact, the first clay tablets that contain any system of writing – in this case “pictograms” written in linear style – date to 3300 BCE. and come from Sumer.⁹ As one can observe in Table 1, in time the cuneiform signs replaced the pictograms, as the language became able to express concepts and actions by exclusively combining the signs.¹⁰

In this sense, one may not properly define the Sumerian system of writing as an *alphabet*, since it included both signs and syllabograms. Unlike the Semitic “22 letters” alphabet, the Sumerian system employed up to 600 signs, out of which ca. 100-150 were syllabic signs. In addition, scholars have shown that the Sumerian language used quite a large number of “homophones,” that is, “words that appear to have been pro-

as numbers of animals and units of goods, into abstract symbols.”

7 D.O. Edzard, “The Sumerian Language,” in *Civilizations of the Ancient Near East*, R. Sasson ed. (Peabody, MA: Hendricksen Publishers, 1995), 4:2107-2116; Robinson, *Istoria Scrisului*, 62-63.

8 Brotzman, *Old Testament Textual Criticism*, 26-27. One will note that the “pictographic writing” is limited “in what it can represent,” because one sign may refer “to several different things.” As Robinson shows,

9 Robinson, *Istoria Scrisului*, 71. P. Michalowski, “Sumerian,” in *The Ancient Languages of Mesopotamia, Egypt and Aksum*, R.D. Woodard ed. (Cambridge: Cambridge University Press, 2008), 6-46, dates the earliest Sumerian clay tablets to 3200 BCE.

10 Thus H. Crawford, *Sumer and the Sumerians* (Cambridge: Cambridge University Press, 2004), 194-96. Robinson, *Istoria Scrisului*, 71, dates the finality of the transition from the “pictogram” to the “sign” around 2600 BCE, when the Sumerian language had been practically replaced by Akkadian. In this sense see also B. Powell, *Writing: Theory and History of the Technology and Civilization*, 75-76.

nounced alike.”¹¹ One may easily imagine the difference between a linear alphabet with 22 letters and a system of writing that employed – in its developed stage – over 600 signs.

In the later part of the second millennium BCE, the Akkadian language became more prominent and in the course of time gradually replaced the Sumerian language. This process was hastened by the geographical spread of the Akkadian-speaking population into Sumer. The Akkadians came from the North-Western part of Mesopotamia and during the 3rd millennium BCE, the cultures of Sumer and Akkad underwent a process of mutual influence. The Akkadian language used a form of the cuneiform script, but it was different from Sumerian and much closer related to the other Semitic families from the Asia Minor. As a written and spoken language, Sumerian was replaced by Akkadian “by the end of the nineteenth century,” even though certain regions still used the language in commerce and diplomacy.¹² Scholars have shown that Sumerian continued to be used in parallel with the Akkadian language, even though it was restricted mainly to the sacred, ceremonial and diplomatic aspects of the Akkadian culture.

Nevertheless, from a historical point of view, scholars have argued that the Sumerians were the first people to make the transition from a pictogram to a script, even though this process may also be observed in

11 As D.O. Edzard shows in “The Sumerian Language,” 4:2108.

12 Edzard, “The Sumerian Language,” 2109. Note also the argument of Huehnergard, “Languages (Sumerian),” *Anchor Bible Dictionary*, 4:164, who divides the history of the Sumerian language into three parts: *Old Sumerian* (3400-2100 BCE), *Neo-Sumerian* (2100-1900 BCE), and *Late Sumerian* (from 1900 BCE on). He too shows that by the 1900 Sumerian had been relegated as a strictly literary language, being replaced by Akkadian as a day to day spoken language. However, P. Michalowski, “Sumerian,” 8, shows that after the “collapse of the Ur III state, Sumerian retained its status as an official language in the south, while in the north, Akkadian dialects began to take over in writing.” Michalowski agrees, however, that by the middle of the 18th century BCE, Sumerian “was no longer used for administrative and accounting purposes.”

the case of the Egyptian system of writing.¹³ That is why we can state that the pictograms were not unique to the Sumerians. As early as the late fourth millennium, the Egyptians employed pictograms in the “hieroglyphic” (“holy letters/signs”) system. Egyptian writing used signs that expressed both phonetic and semantic notions. In other words, a sign could refer to an *object* or an *action*, but it may also convey a certain *syllable* or *vowel*.¹⁴ Because of this combination, the Egyptian hieroglyphic system combined both phonological and ideographic elements.¹⁵

It is also worth noticing that Egyptian writing did use a set of twenty-four alphabetic, “that is, consonantal signs,” which covered “almost

-
- 13 F.R. Steele, “Sumer,” *The International Standard Bible Encyclopedia*, G. Bromiley ed. (Grand Rapids, MI: Eerdmans, 1988), 4:653-62, lists three facts that establish the theory that the Sumerians invented the script. In the first place, “writing arose in Sumer after the Sumerians arrived.” Second, “when the individual signs can be read syllabically the pronunciation of the syllable is the Sumerian word for the original picture. And third, “the language of the earliest inscriptions is Sumerian.”
- 14 Robinson, *Istoria Scrisului*, 33; Lipinsky, *Semitic Languages. Outline of a Comparative Grammar*, 26-27; J.P. Allen, *Middle Egyptian: An Introduction in the Language and Culture of the Hieroglyphs* (Cambridge: Cambridge University Press, 2012), 25-27; J.P. Allen, “Languages (Egyptian),” *The Anchor Bible Dictionary*, D.N. Freedman ed. (New York: Doubleday, 1992), 4:188-193; J.E. Hoch, *Middle Egyptian Grammar* (Mississauga, Ontario: Benben Publications, 1997), 16-17.
- 15 Thus A. Loprieno, “Ancient Egyptian and Other Afroasiatic Languages,” in *Civilizations of the Ancient Near East*, R. Sasson ed. (Peabody, MA: Hendricksen Publishers, 1995), 4:2135-2150. For example, “a sitting man expresses the lexical sphere of ‘man, mankind,’ a scribe’s kit indicates the semantic realm of ‘writing.’ “In order to clarify the exact sense of the idea the writer wanted to convey, the Egyptian language had to use additional signs, or “determinants.” For this reason, a scribe who became proficient in the classical Egyptian language had to master and use ca. 700 signs and ca. 100 syllabic signs. Thus Brotzman, *Old Testament Textual Criticism*, 32. Even worse was the case of a scribe living in the Ptolemaic era (4th century BCE), when the number of signs “increased dramatically to many thousands;” thus Loprieno, “Ancient Egyptian and Other Afroasiatic Languages,” 2138.

completely the inventory of consonantal and semi-consonantal phonemes of the Egyptian language.”¹⁶ As we will show later, this alphabetic system was successfully employed by the Canaanites in the second millennium BCE, even though they did make a number of changes in the signs themselves. In the case of the Egyptian language, however, “this set of signs never developed into a genuine alphabetic system.” In other words, from its earliest to the latest stages, the hieroglyphic writing system never gave up to the pictograms or the signs that expressed objects, not only consonants or vowels. As we already mentioned, by the Ptolemaic era (4th century BCE) the number of signs that an Egyptian scribe had to master amounted to several thousand. Finally, one must also take into account the relation between the Canaanite alphabet and the Ugaritic language. This aspect must be considered because the Ugaritic language, along with the Canaanite dialects, was part of the family of Semitic languages. Even more important, it devised an alphabet made up by approximately 30 signs.

The Ugaritic language flourished in the city-state of Ugarit (North-Western Syria), possibly in the first part of the 2nd millennium BCE, as the first inscriptions attest an elaborate form of the language around the 14th century BCE.¹⁷ An interesting aspect of the language is that it used several scripts in the context of “international trade and diplomacy.”¹⁸ However, unlike the Sumerian and Akkadian cuneiform languages which used “syllabic signs” and “syllabograms,” the Ugaritic language

16 A. Loprieno, “Ancient Egyptian and Other Afroasiatic Languages,” 2139.

17 J. Healey, Peter C. Craigie, “Languages (Ugarit),” in *The Anchor Bible Dictionary*, N.D. Freedman ed. (New York: Doubleday, 1992), 4:226-29; “Ugarit: A Second-Millennium Kingdom on the Mediterranean Coast,” in *Civilizations of the Ancient Near East*, R. Sasson ed. (Peabody, MA: Hendricksen Publishers, 1995), 2:1255-1266.

18 J. Healey, Peter Craigie, “Languages (Ugarit),” 227, list here “alphabetic cuneiform (used especially for Ugaritic itself), syllabic cuneiform, and hieroglyphic.” For the different types of the cuneiform script that was used in the ancient world see Powell, *Writing: Theory and History of the Technology of Civilization*, 76.

employed “alphabetic cuneiform signs.”¹⁹ This was a unique feature in the family of the “cuneiform” languages such as Sumerian and Akkadian. By combining “the graphic principles of syllabic cuneiform...with the principle of the consonantal alphabet,” the Ugaritic language represented a mediatory link between the two systems.²⁰ Scholars have explained this phenomenon – unique among the languages of Asia Minor and former Mesopotamia – as an influence upon Ugaritic scribes via the culture of Byblos, an ancient Phoenician city in the second millennium BCE.²¹ It is possible that the scribes at Ugaritic may have felt that the Akkadian cuneiform writing was too complicated. As Healey and Craigie show, there still remained several differences between the 22 (or 23) syllables, linear alphabet and the Ugaritic cuneiform alphabet. Among other factors, the Ugaritic script “employed 30 symbols,” unlike the shorter Canaanite alphabet, which employed 22 letters. Although the symbols may be classified as “cuneiform,” they did not resemble the Akkadian signs. For example, a Babylonian scribe would not have been able to read the Ugaritic script, even though both systems may be classified as “cuneiform.”²² Even though the Ugaritic script tradition “died out when the city was destroyed,” it remains an important link and proof of the impact of the Canaanite simplified alphabet upon the other systems of writing in the Ancient Near East (see Table 3).²³

19 Thus Lipinsky, *Semitic Languages*, 86-87, and Robinson, *Istoria Scrisului*, 162, who notes that in the history of Ugaritic no less than ten different languages and five systems of writing were used.

20 Healey and Craigie, “Languages (Ugaritic),” 227.

21 Thus also R.S. Hess, “Language of the Pentateuch,” *Dictionary of the Pentateuch*, D. Alexander ed. (Downers Grove, IL: Intervarsity Press, 2003), 493. Robinson, *Istoria Scrisului*, 162, states that the reason for this phenomenon may have been economical, as Ugarit was an important trade center in which caravans from Siria, Mesopotamia and Anatolia would trade their cargo.

22 Robinson, *Istoria Scrisului*, 163.

23 Healey and Craigie, “Languages (Ugaritic),” 227, and Lipinsky, *Semitic Languages*, 88.

The Canaanite Alphabet

The reason we have analyzed almost exclusively the Sumerian, Akkadian, Egyptian and the Ugaritic systems of writing is because most likely they formed the foundation upon which the Canaanite Alphabet was developed. As we argued above, even though the Sumerian language lost its influence in the first part of the second millennium BCE, it was able to set in motion a process which was partly responsible for the creation of the linear Semitic alphabet. The Proto-Sinaitic alphabetic script may have been used as early as the 17th century BCE in the “western Sinai at the turquoise mines at Serabit el-Khadem,” where workers “left graffiti inscribed on” older monuments such as the sphinx.²⁴ The site is located in Egypt, in the Southern part of the Sinai peninsula.

In 1906 the English archaeologist Sir William Flinders Petrie, along with his wife Hilda, discovered several artifacts, most notably, the statue of a small sphinx – containing a number of “awkward signs that seemed not to be real hieroglyphs.”²⁵ Petrie extended the search inside the turquoise mines from the area and found a number inscriptions on stones, statues and on the wall of the mines that contained the earliest linear alphabet known to human kind. The signs were both pictograms (e.g., the symbol of the head of a bull for letter “A”) and symbols, but their constant

24 R.S. Hess, “Language of the Pentateuch,” *Dictionary of the Old Testament Pentateuch*, 491-97; L. McFall, “Hebrew Language,” *The International Standard Bible Encyclopedia*, G. Bromiley ed. (Grand Rapids, MI: Eerdmans, 1982), 2:657-663; P. Schmitz, “Languages (Hebrew),” in *The Anchor Bible Dictionary*, D.N. Freedman ed. (New York: Doubleday, 1992), 4:204-206; B.K. Waltke, M. O’Connor, *An Introduction to Biblical Hebrew Syntax* (Winona Lake, IN: Eisenbrauns, 1990), 7. For “the influence of the Canaanite/Phoenician script on “linear consonantal alphabet used for Aramaic” see S. Kaufman, “Languages (Aramaic),” *The Anchor Bible Dictionary*, D.N. Freedman ed. (New York: Doubleday, 1992), 4:173-78.

25 Thus Orly Goldwasser, “How the Alphabet Was Born From the Hieroglyphs,” *Biblical Archaeology Review*, Mar/Apr 2010 (<http://www.bib-arch.org/article.asp?PubID=BSBA&Volume=36&Issue=2&ArticleID=6&UserID=0>) (accessed 3/24/2010)

recurrence in a rather short space indicated that the language was much simpler than the hieroglyphic or the cuneiform systems.

Petrie was unable to decipher the inscriptions and the research came to a halt until 1916, when Egyptologist Sir Alan Gardiner reviewed the Serabit el-Khadem inscriptions and “noticed a group of four signs that was frequently repeated in these unusual inscriptions.” Gardiner was able to transliterate and translate the expression into the phrase “*b-‘-l-t*, vocalized as *Baalat*, ‘the Mistress’” (representing Hathor, the Egyptian goddess of fertility). Using a second inscription found on the statue of a sphinx, the researchers were able to add more knowledge to the decipherment of the linear alphabet.²⁶ They realized that the inscriptions contained an early form of the Canaanite linear alphabet of 22 (or 23) letters.²⁷ Using comparative research from Hebrew and Phoenician inscriptions and written texts, the researchers concluded that the 22 letters linear alphabet may have appeared sometimes around 1700’s BCE.²⁸

Several other discoveries in the area of Israel certified the usage of the Canaanite script as early as the 17th century BCE. One is a recently discovered inscription written “in early Canaanite script from Lachis, incised on an ivory comb (see image nr. 7).²⁹ The letters in the inscription are pictographic in character, and the text reads:

26 Robinson, *Istoria Scrisului*, 160-161; B.S.J. Isserlin, “The Earliest Alphabetic Writing,” in *The Cambridge Ancient History*, vol. III/1, J. Boardman ed. (Cambridge: Cambridge University Press, 1982), 794-818, esp. 799.

27 For the debate on the theory that the alphabet may have initially contained 27 signs see Isserlin, “The Earliest Alphabetic Writing,” 801-802.

28 Thus Brotzman, *Old Testament Textual Criticism*, 30-31; B.S.J. Isserlin, “The Earliest Alphabetic Writing,” 799-800; S.G. Khalaf, <http://phoenicia.org/alphabet.html#Charts>; Lipinsky, *Semitic Languages*, 56-57. One may also note the discovery by John Darnell of the inscription of Wadi el-Hol, an even earlier form of the linear alphabet, for the most part containing only pictograms; thus

29 Daniel Vainstub, Madeleine Mumcuoglu, Michael G. Hasel, Katherine M. Hesler, Miriam Lavi, Rivka Rabinovich, Yuval Goren and Yosef Garfinkel, 2022. “A Canaanite’s Wish to Eradicate Lice on an Inscribed Ivory Comb from

ytš ḥṭ d lqml š‘[r w]zqt

“May this tusk root out the lice of the hai[r and the] beard.”

In the view of the authors, “for the first time we have an entire verbal sentence written in the dialect spoken by the Canaanite inhabitants of Lachish.”³⁰ According to Vainstub et al, the syntax (volitive verb-subject-object) is common to that of “Canaano-Akkadian in el-Amarna letters,” as well as later North West Semitic texts, including classic Biblical Hebrew.³¹ Again, this text attests to the very early development, not only of the alphabetic script, but also of the North-Western Semitic languages, including Biblical Hebrew.

Another recent inscription that was deemed critical by epigraphists and archaeologists alike is the Tel Lachish, so called “Missing Link”, inscription. The text was written on a ceramic sherd and it only has two lines of text: ‘*bd* (first line) which could be a reference to a “servant” or a “slave,” slave) and *npt* (second line), a word that could refer to “honey” or describe the proper name of the servant mentioned in the first line.³² The inscription is significant because it has been dated around the 15th century BCE., and it is “currently the oldest securely dated alphabetic inscription from the Southern Levant.”

The deciphering of the Serabit El-Kadhim inscriptions, corroborated with graffiti-letters scribbled on the walls of the Serabit turquoise mines, led scholars to believe that the pro-Canaanite writing was to a large extent influenced by the Egyptian language.³³ Adding to this equation the

Lachish.” *Jerusalem Journal of Archaeology*, 2: 76–119.

<https://doi.org/10.52486/01.00002.4>; <https://jjar.huji.ac.il>

30 *Ibid.*, 109.

31 *Ibid.*, 107-108.

32 Felix Hoflmayer, Haggai Misgav, Lyndelle Webster, Katarina Streit, “Early Alphabetic Writing in the Ancient Near East: the ‘Missing Link’ from Tel Lachish.” *Antiquity*, vol. 95, nr. 381 (June 2021), 705-19.

33 Thus Nadav Naaman, “Egyptian Centers and the Distribution of the Alphabet

Tel-Lachish inscriptions, we may state the phenomenon of the early alphabetic writing in Southern Levant “should be considered a product Levantine-Egyptian interaction during the mid second millenium BC.”³⁴ Evidently, the Egyptian scribal activity in those areas must have spurred the development of the early Canaanite alphabetic system. As we stated earlier, even though the 24-consonant system had already been in use by Egyptian scribes before the 17th century BCE., it never progressed to a working alphabetic system.³⁵ To a large extent, that feat belongs to the Canaanites.

As with the Sumerian script, the Semitic alphabet had to go through a process of formation which included using some of the pictograms that one finds in the early Sumerian and Egyptian languages.³⁶ However, unlike these two systems of writing, the Canaanite language used the pictograms in order to represent 22 consonants, three of which could be also used to mark the vowels (Table 4). Scholars are unanimous in the conclusion that the proto-Canaanite linear alphabet formed the basis on which the Phoenician, Hebrew, Edomite, Amonite, Edomite and Aramaic dialects flourished.³⁷ Likewise, there does not exist clear and definitive data that can track the development from the proto-Canaanite alphabet to the alphabetic writing that the Phoenicians, Hebrews and the other inhabi-

in the Levant,” *Journal of the Institute of Archaeology of Tel Aviv University*, vol. 47 (2020), 1:25-94.

34 Holfmayer, “Early Alphabetic Writing in the Ancient Near East: the ‘Missing Link’ from Tel Lachish,” 1ff.

35 See footnote 13.

36 Isserlin, “The Earliest Alphabetic Writing,” 799-801. Powell, *Writing*, 164-66, argues that the Egyptian system of writing may have supplied the pictograms that were later adapted to form the Semitic linear alphabet.

37 J. Huehnergard, “Semitic Languages,” *Civilizations of the Ancient Near East*, 4:2122-24; Schmitz, “Languages (Hebrew),” *The Anchor Bible Dictionary*, N.D. Freedman ed. (New York: Doubleday, 1992), 4:203-206; Z. Harris, *A Grammar of the Phoenician Language* (New Haven, CN: American Oriental Society, 1936, 1990), 1-6.

tants of Asia Minor used at the end of the 2nd millennium BCE.³⁸ The earliest proof that attest to the alphabetic writing in ancient Israel dates from 12th to the 10th century BCE. (in the form of inscription made on tools, weapons and ceramics).³⁹ However, even in spite of the fragmentary evidence, scholars have had sufficient data to conclude that in the later part of the second millennium BCE, the Phoenician, Hebrew and Aramaic languages already had a working system of writing.⁴⁰ Inscriptions such as the Gezer Calendar (Israel), the Azarbaal inscription, the Ahiram Sarcophagus and the Yehimilk inscriptions (Phoenicia) attest to a well established writing system beginning with the 11th century B.C. One may plausibly argue that a transition from a “pictographic-sign-letter” alphabet to a “letter-only” alphabet had to have been made at least by the 13th century B.C. In other words, by the 13th century B.C., in certain parts of Asia Minor (Israel, Phoenicia), the pictograms had been discarded in favor of a “letter-only” alphabet.

We are now in a better position to understand the transition from the early pictographic, to the cuneiform and hieroglyphic, and finally to the linear alphabet, “letter only,” systems of writing. The following table illustrates the division of the Ancient Semitic Languages in Mesopotamia and the Asia Minor.

38 Robinson, *Istoria Scrisului*, 164.

39 Robinson, *Istoria Scrisului*, 161; Goldwasser, “How the Alphabet Was Born From the Hieroglyphs,” *Biblical Archaeology Review*, Mar/Apr 2010 (<http://www.bib-arch.org/article.asp?PubID=BSBA&Volume=36&Issue=2&ArticleID=6&UserID=0>(accessed 3/24/2010)); Schmitz, “Languages (Hebrew),” *The Anchor Bible Dictionary*, 4:205; Hess, “Language of the Pentateuch,” 493; Brotzman, *Old Testament Textual Criticism*, 30-31.

40 See Lipinsky, *Studies in Aramaic Inscriptions and Onomastics*, vol. 2 (Leuven: Peeters Publishing, 1994), 83-84, and C.H. Rollston, *Writing and Legacy in the World of Ancient Israel: Epigraphic Evidence* (Atlanta, GA: Society of Biblical Literature), 12ff.; Powell, *Writing: Theory and History of the Technology of Civilization*, 159-166.

AURELIAN BOTICĂ

| Ancient Semitic Languages | | | | | |
|---|-------------------|-----------------|-----------------|----------------|--|
| North-Western Semitic dialects (ca. 1700 BCE) | | | | | Eastern Semitic dialects (ca. 2600 BCE) |
| <i>Canaanite dialects</i> | <i>Phoenician</i> | <i>Ugaritic</i> | <i>Amoritic</i> | <i>Aramaic</i> | <i>Akkadian</i> <i>(Cuneiform script developed from the Sumerian)</i> |
| Ammonite | | | | | <i>Assyrian</i> |
| Edomite | | | | | |
| Hebraic | | | | | |
| Moabite | | | | | |

The Greek, the Etruscan and the Latin Alphabets

The formation of the Greek alphabet included several historical stages. Scholars have usually referred to two main periods in the development of the alphabet: Mycenaean period and the classical period.

The Early Stage of the Linear B system

The Mycenaean age covered the period between the 19th through the 11th centuries BCE. The writing system in this period was characterized by a combination of pictograms, symbols and letters. In this sense, one may not properly refer to a “letter alphabet,” since the total number of elements that the Greeks were using to write was in the hundreds and the elements themselves combined both symbols and images. Scholars have identified this system of writing as the Linear B syllabic script. In the *Odyssey*, Homer referred to the city of Knossos, a place where peo-

ple used a series different languages.⁴¹ In the 1900's, archaeologist Arthur Evans found several inscriptions that contained a system of writing that had not been identified up to that point. Evans recognized, among other things, the presence of hieroglyphs, but also of other symbols and pictograms, two of which he named Linear A and Linear B.⁴² Evans focused on the Linear B system and, using inscriptions found on the island of Cyprus, was able to decipher several of the signs.

The full unlocking of the Linear B script, however, took place in 1952 and it belonged to Michael Ventris, with the (independent) help of the American archaeologist Carl Blegen.⁴³ By the time of Blegen's discovery, Ventris had been able to "decode" a number of the Linear B symbols, and thus create syllabary that included sizable number of syllables. With the help of the syllabary, scholars were able to translate several of the texts that had been found up to that point. Even though Ventris was not entirely confident, he hypothesized that the language was very close to classical Greek. Obviously, the script was radically different and cumbersome, and the style pointed to a series of administrative lists of the palace. The texts were limited in number and they focused mainly on non-literary subjects. For this reason, a number of scholars concluded that Greek civilization in the Mycenaean period lacked the achievements of the classical age. Some reasoned that the cause had to be the lack of a writing system capable of expressing philosophical and poetical themes.

41 Robinson, *Istoria Scrisului*, 109-114; W. Burkert, *Greek Religion* (Cambridge, MA: Harvard University Press, 1985), 21. See also J.F. Strange, "Greece," *The International Standard Bible Encyclopedia*, G.W. Bromiley ed. (Grand Rapids, MI: Eerdmans, 1982), 2:557-67, for the suggestion that the linear A and B scripts were Semitic in origins.

42 The Linear A type has not been fully deciphered, partly because of the destruction of Minoan civilization in the 14th century, which led to the disappearance of this system of writing. See also R. Stroud, "The Art of Writing in Ancient Greece," in *The Origins of Writing*, W.M. Senner ed. (Lincoln, NE: University of Nebraska Press, 1991), 103-120.

43 Robinson, *Istoria Scrisului*, 114-119.

The Phoenician Basis and the Formation of the Greek alphabet

Herodotus, a 5th century Greek historian, stated that Cadmus and his Phoenicians brought the alphabet with them when they settled in Thebes.⁴⁴ Several inscriptions that can be dated to the 7th century were found in former Greek city states, on both sides of the Aegean Sea, which suggests that the alphabet may have spread “alongside sea-trade routes.” One of the earliest inscriptions of the linear, 24 letter, Greek alphabet dates from the 8th century and it comes from a fully preserve vessel that has the words “whoever of the dancers now dances most gracefully.”⁴⁵ The expression “phoinikeia grammata” (*the Phoenician letters*), used by the early Greek traditions in order to describe the borrowing of the alphabet from the Phoenicians, “shows clearly the direction in which the origin of this system should be sought.” Clearly, the Greeks borrowed the alphabet from Phoenicia, or Phoenician settlers brought it to Greece. Now, we argued that the alphabet had been in use in Asia Minor beginning with the

44 Jeffery, “Greek Alphabet Writing,” in *The Cambridge Ancient History*, vol. III/1, J. Boardman ed. (Cambridge: Cambridge University Press, 1982), 819-823. Note also Powell, *Homer and the Origin of the Greek Alphabet*, 5-6, and the quotes from Kritias (ca. 460-403 BCE): “Phoenicians discovered word-guarding scratchings,” and Nonnos (4.259-64): “But he [Kadmos]... made tools that echoed the tongue, mingling vowels ...and consonants,...all in a row of integrated harmony.” Herodotus, who himself visited Phoenicia in the 5th century, mentions the alphabetic writings on the walls of the temple of Apollo Ismenios at Thebes, the city Kadmos founded. However, Powell argues that Herodotus assumed wrongly that Kadmus brought the alphabet from Phoenicia, since the rule of Kadmus may have belonged to the 16th century BCE, and Thebes itself has not yielded any data with Phoenician activity. The legendary implications aside, it is evident that early Greeks writers knew about the Phoenician origins of the Greek alphabet and sought to attach them to well known Phoenician rulers.

45 Robinson, *Istoria Scrisului*, 167. For other early inscriptions see L.H. Jeffery, “Greek Alphabetic Writing,” 819ff., and Stroud, “The Art of Writing in Ancient Greece,” 111ff. For the dating of the various Greek dialects see H.B. Smyth, *Greek Grammar* (Cambridge, MA: Harvard University Press, 1956), 1-4B. It is possible that the vessel may have been a prize for a dancing contest.

13th century BCE, in cultures like Israel, Phoenicia, Syria, Edom, and the like. It is at least conceivable that the alphabet may have been brought by, or borrowed from, any of these groups of people.⁴⁶ Most of these states had access to sea trade and we know from other sources that not only the Phoenicians, but other North-Western Semitic groups engaged in sea trade.⁴⁷

Scholars have proposed various dates for the process of adopting the Phoenician alphabet. Gelb argued that the earliest data from the field of archaeology show a high level of variation in the letters of the alphabet. This phenomenon may suggest that “it is clearly impossible to speak of a single Greek alphabet in this early period.”⁴⁸ Isserlin puts a date for the transfer around the 9th or 8th century, even though he allows for the (very probable) scenario of a “period of preliminary experimentation” that “may have preceded the final adaptation of the Semitic alphabet to the Greek needs.”⁴⁹ Now, if the linear alphabet was in use in the 8th century, it is evidently possible that it must have been introduced after the 11th cen-

46 For variations of this argument see the critique of Powell by P. Kyle McCarter in “Who Invented the Alphabet: A Different View,” <http://www.basarchive.org/sample/bswbBrowse.asp?PubID=BSAO&Volume=1&Issue=1&ArticleID=17>. The disagreement revolves around the problem of the dissemination of the Phoenician alphabet in Greece, not on the original inventors of the alphabet.

47 Powell, *Homer and the Origin of the Greek Alphabet*, 12-15, points to archaeological data, including inscriptions, that attest the Phoenician presence in the islands of Euboea, Rhodes, Crete, Thera and Cyprus, as early as the 9th century BCE; similarly, Isserlin, “The Earliest Alphabetic Writing,” 817.

48 *A Study of Writing*, 180. This variation may suggest that “the borrowing and adaptation of the Phoenician writing took place independently in the various areas of the Greek world.” Isserlin, “The Earliest Alphabetic Writing,” 816-818, argues that the process of borrowing first took place at an unofficial level, since the earliest Greek scripts do not resemble the “curved” Canaanite letters of the more official inscriptions.

49 Isserlin, “The Earliest Alphabetic Writing,” in *The Cambridge Ancient History*, vol. III/1, J. Boardman ed. (Cambridge: Cambridge University Press, 1982), 817.

tury, when the Mycenaean civilization came to an end. Regardless of the time, we know for sure that the early Greeks adapted their alphabet from the model that was already in existence in Phoenicia.⁵⁰

Nevertheless, the strongest argument for the Phoenician origins of the Greek alphabet is the striking resemblance between the letters of these two alphabets. As Table 5 shows, the letters of the Greek alphabet reflect (with minor variations) an “one on one” correspondence with the letters of the Phoenician alphabet. Scholars have focused on this aspect in order to determine the exact location from which the alphabet first arrived.⁵¹ For the purpose of our argument, what counts is the fact that the Linear B script from the Mycenaean Age and the Greek letters from the 8th century BCE. onward are so different, that one cannot but conclude that a major revolution took place in Greece after the fall of the Mycenaean civilization.

Evidently, there exist differences between the two alphabets, on the level of the shape of letters and, especially, their number.⁵² As one will note in the comparative table, the differences between the shapes of the letters are minor. If one finds differences among the alphabets of the North-Western Semitic cultures themselves, surely, he or she will expect a level of variation between the Phoenician and the Greek alphabet. More important is the addition of certain letters in the Greek alphabet.⁵³ The Greek alphabet adds the four letters *phi*, *psi*, *chi* and *omega* to “supplement the range of sounds covered by the Phoenician alphabet.”⁵⁴ As one knows, the Hebrew and Phoenician alphabet does not include the vowels;

50 J. Gelb, *A Study of Writing* (Chicago, IL: University of Chicago Press, 1963), 176; Robinson, *Istoria Scrisului*, 167.

51 See especially Powell, *Homer and the Origin of the Greek Alphabet*, 8-12; Isserlin, “The Earliest Alphabetic Writing,” 812-816.

52 J. Gelb, *A Study of Writing*, 180ff.; L.H. Jeffery, “Greek Alphabetic Writing,” 830ff.

53 Thus Robinson, *Istoria Scrisului*, 166-167.

54 Stroud, “The Art of Writing in Ancient Greece,” 113-114.

they are read, but for the most part they are not written in the text.⁵⁵ Kyle McCarter shows that

“The Phoenician script was strictly consonantal. Vowels were not represented, and the reader was required to supply them from his or her knowledge of the language. This system worked reasonably well for Phoenician, since in that language there are no words that begin with vowels. But in Greek many words do begin with vowels. So when the Greeks adopted—and adapted—the Phoenician script, they needed to add new signs to represent vowels. The result was a significant advance in sophistication and precision—a giant step forward in the evolution of the alphabet.”⁵⁶

In the Phoenician and Hebrew culture, the omission of writing the vowels in the main text posed no problem for the native speakers. For the Greeks, however, the omission was a problem which they solved by adding the four vowels and by reshaping the consonants that the Semites used to indicate certain vowels. As Stroud has pointed out,

“It is, however, in the use of the five signs representing consonants in the Semitic alphabet to render vowels in the Greek system that we see the clearest evidence of Greek innovation. This is more than borrowing. The spelling out in the Greek alphabet of the vowel sounds, which had remained without individual letters to designate them in the Phoenician, was a major step that has had a profound impact on most of the alphabetic systems of the Western world.”⁵⁷

55 To identify certain vowels, the Hebrew language uses a number consonants as “helpers” in order to indicate when and how a certain vowel ought to be read. They are called “matres lectiones” (the mother of learning), because they help the reader pronounce correctly a certain vowel, and also preserve a certain reading of that respective word.

56 In <http://www.basarchive.org/sample/bswbBrowse.asp?PubID=BSAO&Volume=1&Issue=1&ArticleID=17>,

57 Stroud, “The Art of Writing in Ancient Greece,” 113-114.

Perhaps we may understand better the innovation of the Greek alphabet now, if we compare it with the Sumerian, the Egyptian, the Akkadian and the Phoenician systems. As we noted, the cuneiform and hieroglyphic systems indicated the vowels and the syllables, but they did so using no less than several hundred pictograms and symbols. It was the Phoenician/Semitic approach that simplified the notion of the alphabet by reducing all letters to only 22 and hiding the vowels from the written form of the alphabet. Since the Greeks found it difficult – if not impossible – not to include the vowels, they added four more letters and “re-sounded” the Semitic consonants that could indicate the vowels as well. In doing so, the Greeks offered both a simpler and a more comprehensive and efficient mechanism than it ever existed before.

The Formation of the Latin Alphabet

The Latin alphabet was borrowed from the Greeks during the time when the Etruscan civilization dominated Rome. From a chronological perspective, Rome was founded within the boundaries of the Etruscan empire and, until it broke free and finally subdued the Etruscans, Rome borrowed heavily from the Etruscan civilization. One of the cultural elements that Rome inherited from the Etruscans was the (modified) Greek alphabet. Ironically, only a few documents and inscriptions have survived that attest to the richness of the Etruscan culture. For the most part, the Romans assimilated and erased the Etruscan culture.

Scholars have shown that the Etruscans borrowed a version of the Greek alphabet from Greek inhabitants who had settled in Cumae, Southern Italy.⁵⁸ The settlers came from the Greek island of Euboea and had been using what scholars call today the Western Greek alphabet. Among other finds, archaeologists recovered several graffiti alphabets

58 John Boardman, “The Islands,” *The Cambridge Ancient History* (Cambridge: Cambridge University Press, 1982), 754-778; Rex Wallace, “The Latin Alphabet and Orthography,” in *A Companion to the Latin Language*, J. Clackson ed. (Chicago, IL: John Wiley & Sons, 2011), Google Books. Web. 28.07.2011.; Robinson, *Istoria Scrisului*, 152-154.

from Etruscan graves that may have Euboean origins.⁵⁹ It is very likely that the alphabet spread to other parts of the Italian peninsula, inside the Etruscan kingdom, since by the 6th century BCE. was already in circulation in all direction from Etruria. However, with the fall of Etruria in the 3rd century BCE, Rome was able to complete the annexation of all the Etruscan territories to the Republic. The Latin alphabet was irreversibly influenced by Etruscan writing, which in turn had been shaped by the Greek alphabet.

One interesting phenomenon was the adaptation of the Greek alphabet to the Etruscan language. These changes included a different order (some of the) the letters and replacing Greek letters with Etruscan ones. For example, in very Old Latin inscriptions, the letter G (gamma in Greek) is replaced by C, as the Etruscan dialect did not make possible the voiced velar stop G. As Wallace pointed out, “it is almost never the case that the alphabet of one language is entirely suited to represent the sounds of another.” For this reason, during the development of the Etruscan-Latin alphabet, not all the Greek letters were used in the everyday language of the people.⁶⁰ Some letters, like K, was gradually phased out from the every day usage and the alphabet. As Wallace has shown, even the morphology of the alphabet underwent certain changes, as the shape of the letters varied according to geographical regions and time chronology.⁶¹ Scholars have also shown that not all letters of the Etruscan alphabet were compatible with the Old Latin alphabet itself, even though some of the Etruscan letters continued to appear in the Latin alphabet, in spite of their not being used in every day conversations.

Alongside with the conquest of new provinces, the Latin alphabet spread to other parts of the world, even the Greek language continued to

59 Wallace, “The Latin Alphabet and Orthography,” also refers to a mortuary flask discovered at Cumae, on which someone wrote several letters on the Western Greek alphabet.

60 Not Robinson, *Istoria Scrisului*, 154, 222.

61 Wallace, “The Latin Alphabet and Orthography.”

AURELIAN BOTICĂ

serve as the Lingua Franca of the Roman empire.⁶² It was not uncommon in certain (far away) regions of the empire to use both Greek and Latin on important monuments. One must also take into consideration the wide circulation of Roman currency.⁶³ From a geographical perspective, the division of the Roman empire into the Western and Eastern kingdoms, and the subsequent impact of the Latin culture on Western Europe, brought irreversible changes to the alphabet of Romance languages. In time the Latin alphabet was stabilized, even though several changes were made even as late as the Medieval times. Note the following comparative chart, which includes the archaic form of the Republican period (3rd century BCE) and the current form of the alphabet:⁶⁴

| | | | | | | | | | | | | | | | | | | | | | |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-------|------|
| <i>Archaic</i> | Α | Β | Ϙ | Δ | Ϝ | Ϟ | Ζ | Η | Θ | Ι | Κ | Λ | Μ | Ν | Ξ | Ο | Ρ | Σ | Τ | Υ | Χ |
| <i>Classical</i> | A | B | C | D | E | F | G | H | I | K | L | M | N | O | P | Q | R | S | T | V | X |
| <i>Translit.</i> | a | b | c | d | e | f | g | h | i | k | l | m | n | o | p | q | r | s | t | u | x |
| <i>Phonetic</i> | [a] | [b] | [k] | [d] | [e] | [f] | [g] | [h] | [i,y] | [k] | [l] | [m] | [n] | [o] | [p] | [k*] | [r] | [s] | [t] | [u,w] | [ks] |

Conclusions

In this study we have shown that the linear alphabet was made possible through a process that used and simplified the complex systems of the Sumerian, Akkadian and Egyptian languages. We have stated that the Sumerians created a system that began with pictograms and evolved to several hundred signs (the cuneiform wedges). The same process occurred in Egypt, even though the Egyptian language never really gave up on pictograms. As the Akkadian population increased, it exerted a cultural influence over the Sumerian people and in time the Akkadian cuneiform system became the norm in the area. The “revolution” to the

62 As Wallace shows, “during the height of the Roman imperium Latin was spoken and...written in Europe, southern Britain, Northern Africa, the Balkan region as far south as Greece, and portions of the Middle East.”

63 Thus K. Harl, *Coinage in the Roman Economy: 300 BCE to CE 700* (Baltimore, MA: John Hopkins University Press, 1996), 148.

64 <http://www.ancientscripts.com/latin.html>.

“linear alphabet” began sometime in the middle of the 2nd millennium, when the Semites from Canaan radically simplified the representation of the letters that had been used up to that point. From hundreds of pictograms and signs, the alphabet was trimmed to 22 (23) consonants. We have shown how this alphabet came to be used in Canaan, in the cultures of the Hebrew, Aramaic, and Phoenician people.

We have also stated that the borrowing the Semitic alphabet by the Greeks was, in itself, another revolutionary event. Various scholars have argued that prior to the borrowing of the Phoenician Alphabet, the Greeks had almost no literary works preserved in a writing form. As we already mentioned, the few records of the Linear B inscriptions that survived from the Mycenaean Age dealt with administrative issues at the court. The Greeks had shared a rich oral tradition, and very likely the Homeric poems came to birth (in oral form only) during that time. As Stroud states, it was the borrowing of the Semitic alphabet that made possible the writing of the Homeric poems and the cultural revolution that followed afterwards:

“Confirmation of the illiteracy of the Greeks at this time [before the borrowing of the Phoenician alphabet], has often been sought in our only available contemporary literature, the Homeric Epics. Allowing for the long period of gestation, the requirements of oral composition, and the unknown date at which these poems were first written down, it is nevertheless a striking fact that in over 27,000 verses of the Iliad and of the Odyssey there is only one brief and ambiguous reference to writing...Those responsible for the formation of the Greek alphabet have been credited with helping to lead their countrymen out of the dark ages into an exciting new era of expansion and discovery.”⁶⁵

We have also stated that, with several minor modifications, the alphabet that lies at the basis of the English language is, essentially, the Latin alphabet.⁶⁶ Today, one only has to think about the dominance of

65 Thus Stroud, “The Art of Writing in Ancient Greece,” 110,

66 Gelb, *A Study of Writing*, 198.

the Romance languages (Europe, Latin America) and the English language in the world today (Western Europe, Australia, North America/Canada) in order to estimate correctly the impact that the Latin alphabet had upon the world.

Bibliography

- Allen, J.P. *Middle Egyptian Grammar: An Introduction in the Language and Culture of the Hieroglyphs*. Cambridge: Cambridge University Press, 2012.
- _____. "Languages (Egyptian)," *The Anchor Bible Dictionary*, D.N. Freedman ed. New York: Doubleday, 1992, 4:188-193.
- Boardman, J. "The Islands," *The Cambridge Ancient History*. Cambridge: Cambridge University Press, 1982, 754-778.
- Brotzman, E. *Old Testament Textual Criticism*. Grand Rapids, MI: Baker Publishing, 1994.
- Burkert, W. *Greek Religion*. Cambridge, MA: Harvard University Press, 1985.
- Crawford, H. *Sumer and the Sumerians*. Cambridge: Cambridge University Press, 2004
- Edzard, D.O. "The Sumerian Language," *Civilizations of the Ancient Near East*, R. Sasson ed. Peabody, MA: Hendricksen Publishers, 1995, 4:2107-2116.
- Gelb, J. *A Study of Writing*. Chicago, IL: University of Chicago Press, 1963.
- Harl, K. *Coinage in the Roman Economy: 300 B.C. to A.D. 700*. Baltimore, MA: John Hopkins University Press, 1996.
- Harris, Z. *A Grammar of the Phoenician Language*. New Haven, CN: American Oriental Society, 1936, 1990.
- Healey, J., Craigie, P. "Languages (Ugarit)," *The Anchor Bible Dictionary*, N.D. Freedman ed. New York: Doubleday, 1992, 4:226-29.
- Hess, R. "Language of the Pentateuch," *Dictionary of the Pentateuch*, D. Alexander ed. Downers Grove, IL: Intervarsity Press, 2003, 493.

- Hoflmayer, F. et all. "Early Alphabetic Writing in the Ancient Near East: the 'Missing Link' from Tel Lachish." *Antiquity*, vol. 95, nr. 381 (June 2021), 705-19.
- Huehnergard, J. "Languages (Summerian)," *Anchor Bible Dictionary*, D.N. Freedman ed. New York: Doubleday, 1992, 4:155-170.
- Isserlin, B.S.J. "The Earliest Alphabetic Writing," in *The Cambridge Ancient History*, vol. III/1, J. Boardman ed. Cambridge: Cambridge University Press, 1982, 794-818.
- Kaufman, S. "Languages (Aramaic)," *The Anchor Bible Dictionary*, D.N. Freedman ed. New York: Doubleday, 1992, 4:173-78.
- Liddell, H.G., Scott, R. *A Greek-English Lexicon*. Oxford: Clarendon Press, 1968, 1990.
- Lipinsky, E. *Studies in Aramaic Inscriptions and Onomastics*, vol. 2. Leuven: Peeters Publishing, 1994.
- _____. *Semitic Languages. Outline of a Comparative Grammar*. Leuven: Peeters Publishing, 1997.
- Loprieno, A. "Ancient Egyptian and Other Afroasiatic Languages," in *Civilizations of the Ancient Near East*, R. Sasson ed. Peabody, MA: Hendricksen Publishers, 1995, 4:2135-2150.
- McFall, L. "Hebrew Language," *The International Standard Bible Encyclopedia*, G. Bromiley ed. Grand Rapids, MI: Eerdmans, 1982, 2:657-663.
- Michalowski, P. "Sumerian," *The Ancient Languages of Mesopotamia, Egypt and Aksum*, R.D. Woodard ed. Cambridge: Cambridge University Press, 2008, 6-46.
- Naaman, N. "Egyptian Centers and the Distribution of the Alphabet in the Levant," *Journal of the Institute of Archaeology of Tel Aviv University*, vol. 47 (2020), 1:25-94.
- Powell, B. *Writing: Theory and History of the Technology and Civilization*. Chicago, IL: John Wiley & Sons, 2012.
- Powell, B. *Homer and the Origin of the Greek Alphabet*. Cambridge, MA: Cambridge University Press, 1996.

AURELIAN BOTICĂ

- Robinson, A. *Istoria Scrisului (The Story of Writing)*, Gafița Mihnea trad. Bucuresti: Editura Art, 2009.
- Rollston, C.H. *Writing and Legacy in the World of Ancient Israel: Epigraphic Evidence*. Atlanta, GA: Society of Biblical Literature.
- Schmandt-Besserat, D. "Record Keeping Before Writing," *Civilizations of the Ancient Near East*, R. Sasson ed. Peabody, MA: Hendricksen Publishers, 1995, 4:2097-2106.
- Schmitz, P. "Languages (Hebrew)," in *The Anchor Bible Dictionary*, D.N. Freedman ed. New York: Doubleday, 1992, 4:204-206.
- Steele, F.R. "Sumer," *The International Standard Bible Encyclopedia*, G. Bromiley ed. Grand Rapids, MI: Eerdmans, 1988, 4:653-62.
- Stroud, R. "The Art of Writing in Ancient Greece," *The Origins of Writing*, W.M. Senner ed. Lincoln, NE: University of Nebraska Press, 1991, 103-120.
- Vainstub, D. et all. "A Canaanite's Wish to Eradicate Lice on an Inscribed Ivory Comb from Lachish." *Jerusalem Journal of Archaeology*, 2022, 2: 76–119.
- Van Soldt, W.H. "Ugarit: A Second-Millennium Kingdom on the Mediterranean Coast," *Civilizations of the Ancient Near East*, R. Sasson ed. Peabody, MA: Hendricksen Publishers, 1995, 2:1255-1266.
- Wallace, R. "The Latin Alphabet and Orthography," in *A Companion to the Latin Language*, J. Clackson ed. Chicago, IL: John Wiley & Sons, 2011. Google Books. Web. 28.07.2011.
- Waltke, B.K., O'Connor, M. *An Introduction to Biblical Hebrew Syntax*. Winona Lake, IN: Eisenbrauns, 1990.

Internet resources

- goldwasser, O. "How the Alphabet Was Born From the Hieroglyphs," *Biblical Archaeology Review*, Mar/Apr 2010 (<http://www.bib-arch.org/article.asp?PubID=BSBA&Volume=36&Issue=2&ArticleID=6&Use-rID=0>(accessed 3/24/2010))
- Khalaf, S.G. <http://phoenicia.org/alphabet.html#Charts>;
- McCarter, K.P. "Who Invented the Alphabet: A Different View,"

<http://www.basarchive.org/sample/bswbBrowse.asp?PubID=BSA-O&Volume=1&Issue=1&ArticleID=17>.

<http://www.basarchive.org/sample/bswbBrowse.asp?PubID=BSA-O&Volume=1&Issue=1&ArticleID=17>,

<http://www.ancientscripts.com/latin.html>, for the

<http://www.websters-online-dictionary.org/definitions/UGARITIC+ALPHABET?cx=partner-pub-0939450753529744%3Av0qd01-tdlq&cof=FORID%3A9&ie=UTF-8&q=UGARITIC+ALPHABET&sa=Search#906>

<http://www.websters-online-dictionary.org/definitions/hebrew+alphabet>

<http://www.websters-online-dictionary.org/definitions/greek+alphabet>